

HOUSE BILL NO. 2026

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the Senate Committee on Commerce and Labor

on \_\_\_\_\_)

(Patron Prior to Substitute--Delegate O'Quinn)

A BILL to amend and reenact § 56-585.5 of the Code of Virginia, relating to renewable energy; biomass-fired facilities; Department of Forestry advisory panel; report.

**Be it enacted by the General Assembly of Virginia:**

**1. That § 56-585.5 of the Code of Virginia is amended and reenacted as follows:**

**§ 56-585.5. Generation of electricity from renewable and zero carbon sources.**

A. As used in this section:

"Accelerated renewable energy buyer" means a commercial or industrial customer of a Phase I or Phase II Utility, irrespective of generation supplier, with an aggregate load over 25 megawatts in the prior calendar year, that enters into arrangements pursuant to subsection G, as certified by the Commission.

"Aggregate load" means the combined electrical load associated with selected accounts of an accelerated renewable energy buyer with the same legal entity name as, or in the names of affiliated entities that control, are controlled by, or are under common control of, such legal entity or are the names of affiliated entities under a common parent.

"Control" has the same meaning as provided in § 56-585.1:11.

"Falling water" means hydroelectric resources, including run-of-river generation from a combined pumped-storage and run-of-river facility. "Falling water" does not include electricity generated from pumped-storage facilities.

"Low-income qualifying projects" means a project that provides a minimum of 50 percent of the respective electric output to low-income utility customers as that term is defined in § 56-576.

"Phase I Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

"Phase II Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

27 "Previously developed project site" means any property, including related buffer areas, if any, that  
28 has been previously disturbed or developed for non-single-family residential, nonagricultural, or  
29 nonsilvicultural use, regardless of whether such property currently is being used for any purpose.  
30 "Previously developed project site" includes a brownfield as defined in § 10.1-1230 or any parcel that has  
31 been previously used (i) for a retail, commercial, or industrial purpose; (ii) as a parking lot; (iii) as the site  
32 of a parking lot canopy or structure; (iv) for mining, which is any lands affected by coal mining that took  
33 place before August 3, 1977, or any lands upon which extraction activities have been permitted by the  
34 Department of Energy under Title 45.2; (v) for quarrying; or (vi) as a landfill.

35 "Total electric energy" means total electric energy sold to retail customers in the Commonwealth  
36 service territory of a Phase I or Phase II Utility, other than accelerated renewable energy buyers, by the  
37 incumbent electric utility or other retail supplier of electric energy in the previous calendar year, excluding  
38 an amount equivalent to the annual percentages of the electric energy that was supplied to such customer  
39 from nuclear generating plants located within the Commonwealth in the previous calendar year, provided  
40 such nuclear units were operating by July 1, 2020, or from any zero-carbon electric generating facilities  
41 not otherwise RPS eligible sources and placed into service in the Commonwealth after July 1, 2030.

42 "Zero-carbon electricity" means electricity generated by any generating unit that does not emit  
43 carbon dioxide as a by-product of combusting fuel to generate electricity.

44 B. 1. By December 31, 2024, except for any coal-fired electric generating units (i) jointly owned  
45 with a cooperative utility or (ii) owned and operated by a Phase II Utility located in the coalfield region  
46 of the Commonwealth that co-fires with biomass, any Phase I and Phase II Utility shall retire all generating  
47 units principally fueled by oil with a rated capacity in excess of 500 megawatts and all coal-fired electric  
48 generating units operating in the Commonwealth.

49 ~~2. By December 31, 2028, each Phase I and II Utility shall retire all biomass-fired electric~~  
50 ~~generating units that do not co-fire with coal.~~

51 3. By December 31, 2045, except for biomass-fired electric generating units that do not co-fire  
52 with coal, each Phase I and II Utility shall retire all other electric generating units located in the  
53 Commonwealth that emit carbon as a by-product of combusting fuel to generate electricity.

54           4-3. A Phase I or Phase II Utility may petition the Commission for relief from the requirements  
55 of this subsection on the basis that the requirement would threaten the reliability or security of electric  
56 service to customers. The Commission shall consider in-state and regional transmission entity resources  
57 and shall evaluate the reliability of each proposed retirement on a case-by-case basis in ruling upon any  
58 such petition.

59           C. Each Phase I and Phase II Utility shall participate in a renewable energy portfolio standard  
60 program (RPS Program) that establishes annual goals for the sale of renewable energy to all retail  
61 customers in the utility's service territory, other than accelerated renewable energy buyers pursuant to  
62 subsection G, regardless of whether such customers purchase electric supply service from the utility or  
63 from suppliers other than the utility. To comply with the RPS Program, each Phase I and Phase II Utility  
64 shall procure and retire Renewable Energy Certificates (RECs) originating from renewable energy  
65 standard eligible sources (RPS eligible sources). For purposes of complying with the RPS Program from  
66 2021 to 2024, a Phase I and Phase II Utility may use RECs from any renewable energy facility, as defined  
67 in § 56-576, provided that such facilities are located in the Commonwealth or are physically located within  
68 the PJM Interconnection, LLC (PJM) region. However, at no time during this period or thereafter may  
69 any Phase I or Phase II Utility use RECs from (i) renewable thermal energy, (ii) renewable thermal energy  
70 equivalent, or (iii) biomass-fired facilities that are outside the Commonwealth, ~~or (iv) biomass-fired~~  
71 ~~facilities operating in the Commonwealth as of January 1, 2020, that supply 10 percent or more of their~~  
72 ~~annual net electrical generation to the electric grid or more than 15 percent of their annual total useful~~  
73 ~~energy to any entity other than the manufacturing facility to which the generating source is interconnected.~~  
74 From compliance year 2025 and all years after, each Phase I and Phase II Utility may only use RECs from  
75 RPS eligible sources for compliance with the RPS Program.

76           In order to qualify as RPS eligible sources, such sources must be (a) electric-generating resources  
77 that generate electric energy derived from solar or wind located in the Commonwealth or off the  
78 Commonwealth's Atlantic shoreline or in federal waters and interconnected directly into the  
79 Commonwealth or physically located within the PJM region; (b) falling water resources located in the  
80 Commonwealth or physically located within the PJM region that were in operation as of January 1, 2020,

81 that are owned by a Phase I or Phase II Utility or for which a Phase I or Phase II Utility has entered into a  
82 contract prior to January 1, 2020, to purchase the energy, capacity, and renewable attributes of such falling  
83 water resources; (c) non-utility-owned resources from falling water that (1) are less than 65 megawatts,  
84 (2) began commercial operation after December 31, 1979, or (3) added incremental generation  
85 representing greater than 50 percent of the original nameplate capacity after December 31, 1979, provided  
86 that such resources are located in the Commonwealth or are physically located within the PJM region; (d)  
87 waste-to-energy or landfill gas-fired generating resources located in the Commonwealth and in operation  
88 as of January 1, 2020, provided that such resources do not use waste heat from fossil fuel combustion ~~or~~  
89 ~~forest or woody biomass as fuel~~; or (e) biomass-fired facilities in operation in the Commonwealth and in  
90 operation as of January 1, ~~2020~~ 2023, that (1) supply no more than 10 percent of their annual net electrical  
91 generation to the electric grid or no more than 15 percent of their annual total useful energy to any entity  
92 other than the manufacturing facility to which the generating source is interconnected and are fueled by  
93 forest-product manufacturing residuals, including pulping liquor, bark, paper recycling  
94 residuals, biowastes, or biomass, as described in subdivisions A 1, 2, and 4 of § 10.1-1308.1, provided  
95 that biomass as described in subdivision A 1 of § 10.1-1308.1 results from harvesting in accordance with  
96 best management practices for the sustainable harvesting of biomass developed and enforced by the State  
97 Forester pursuant to § 10.1-1105, or (2) are owned by a Phase I or Phase II Utility, have less than 52  
98 megawatts capacity, and are fueled by forest-product manufacturing residuals, biowastes, or biomass, as  
99 described in subdivisions A 1, 2, and 4 of § 10.1-1308.1, provided that biomass as described in subdivision  
100 A 1 of § 10.1-1308.1 results from harvesting in accordance with best management practices for the  
101 sustainable harvesting of biomass developed and enforced by the State Forester pursuant to § 10.1-1105.  
102 Regardless of any future maintenance, expansion, or refurbishment activities, the total amount of RECs  
103 that may be sold by any RPS eligible source using biomass in any year shall be no more than the number  
104 of megawatt hours of electricity produced by that facility in ~~2019~~ 2022; however, in no year may any RPS  
105 eligible source using biomass sell RECs in excess of the actual megawatt-hours of electricity generated  
106 by such facility that year. In order to comply with the RPS Program, each Phase I and Phase II Utility may  
107 use and retire the environmental attributes associated with any existing owned or contracted solar, wind,

108 ~~of~~ falling water, or biomass electric generating resources in operation, or proposed for operation, in the  
 109 Commonwealth or solar, wind, or falling water resources physically located within the PJM region, with  
 110 such resource qualifying as a Commonwealth-located resource for purposes of this subsection, as of  
 111 January 1, 2020, provided that such renewable attributes are verified as RECs consistent with the PJM-  
 112 EIS Generation Attribute Tracking System.

113 The RPS Program requirements shall be a percentage of the total electric energy sold in the  
 114 previous calendar year and shall be implemented in accordance with the following schedule:

a	Phase I Utilities		Phase II Utilities	
a	Year	RPS Program Requirement	Year	RPS Program Requirement
b	2021	6%	2021	14%
c	2022	7%	2022	17%
d	2023	8%	2023	20%
e	2024	10%	2024	23%
f	2025	14%	2025	26%
g	2026	17%	2026	29%
h	2027	20%	2027	32%
i	2028	24%	2028	35%
j	2029	27%	2029	38%
k	2030	30%	2030	41%
l	2031	33%	2031	45%
m	2032	36%	2032	49%
n	2033	39%	2033	52%
o	2034	42%	2034	55%
p	2035	45%	2035	59%
q	2036	53%	2036	63%

r	2037	53%	2037	67%
s	2038	57%	2038	71%
t	2039	61%	2039	75%
u	2040	65%	2040	79%
v	2041	68%	2041	83%
w	2042	71%	2042	87%
x	2043	74%	2043	91%
y	2044	77%	2044	95%
z	2045	80%	2045 and thereafter	100%
aa	2046	84%		
ab	2047	88%		
ac	2048	92%		
ad	2049	96%		
ae	2050 and thereafter	100%		

116 A Phase II Utility shall meet one percent of the RPS Program requirements in any given  
117 compliance year with solar, wind, or anaerobic digestion resources of one megawatt or less located in the  
118 Commonwealth, with not more than 3,000 kilowatts at any single location or at contiguous locations  
119 owned by the same entity or affiliated entities and, to the extent that low-income qualifying projects are  
120 available, then no less than 25 percent of such one percent shall be composed of low-income qualifying  
121 projects.

122 Beginning with the 2025 compliance year and thereafter, at least 75 percent of all RECs used by a  
123 Phase II Utility in a compliance period shall come from RPS eligible resources located in the  
124 Commonwealth.

125 Any Phase I or Phase II Utility may apply renewable energy sales achieved or RECs acquired in  
126 excess of the sales requirement for that RPS Program to the sales requirements for RPS Program

127 requirements in the year in which it was generated and the five calendar years after the renewable energy  
128 was generated or the RECs were created. To the extent that a Phase I or Phase II Utility procures RECs  
129 for RPS Program compliance from resources the utility does not own, the utility shall be entitled to recover  
130 the costs of such certificates at its election pursuant to § 56-249.6 or subdivision A 5 d of § 56-585.1.

131 D. Each Phase I or Phase II Utility shall petition the Commission for necessary approvals to  
132 procure zero-carbon electricity generating capacity as set forth in this subsection and energy storage  
133 resources as set forth in subsection E. To the extent that a Phase I or Phase II Utility constructs or acquires  
134 new zero-carbon generating facilities or energy storage resources, the utility shall petition the Commission  
135 for the recovery of the costs of such facilities, at the utility's election, either through its rates for generation  
136 and distribution services or through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1.  
137 All costs not sought for recovery through a rate adjustment clause pursuant to subdivision A 6 of § 56-  
138 585.1 associated with generating facilities provided by sunlight or onshore or offshore wind are also  
139 eligible to be applied by the utility as a customer credit reinvestment offset as provided in subdivision A  
140 8 of § 56-585.1. Costs associated with the purchase of energy, capacity, or environmental attributes from  
141 facilities owned by the persons other than the utility required by this subsection shall be recovered by the  
142 utility either through its rates for generation and distribution services or pursuant to § 56-249.6.

143 1. Each Phase I Utility shall petition the Commission for necessary approvals to construct, acquire,  
144 or enter into agreements to purchase the energy, capacity, and environmental attributes of 600 megawatts  
145 of generating capacity using energy derived from sunlight or onshore wind.

146 a. By December 31, 2023, each Phase I Utility shall petition the Commission for necessary  
147 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
148 environmental attributes of at least 200 megawatts of generating capacity located in the Commonwealth  
149 using energy derived from sunlight or onshore wind, and 35 percent of such generating capacity procured  
150 shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind  
151 facilities owned by persons other than the utility, with the remainder, in the aggregate, being from  
152 construction or acquisition by such Phase I Utility.

153           b. By December 31, 2027, each Phase I Utility shall petition the Commission for necessary  
154 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
155 environmental attributes of at least 200 megawatts of additional generating capacity located in the  
156 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating  
157 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar  
158 or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,  
159 being from construction or acquisition by such Phase I Utility.

160           c. By December 31, 2030, each Phase I Utility shall petition the Commission for necessary  
161 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
162 environmental attributes of at least 200 megawatts of additional generating capacity located in the  
163 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating  
164 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar  
165 or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,  
166 being from construction or acquisition by such Phase I Utility.

167           d. Nothing in this subdivision 1 shall prohibit such Phase I Utility from constructing, acquiring, or  
168 entering into agreements to purchase the energy, capacity, and environmental attributes of more than 600  
169 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or  
170 onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-  
171 585.1.

172           2. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary  
173 approvals to (i) construct, acquire, or enter into agreements to purchase the energy, capacity, and  
174 environmental attributes of 16,100 megawatts of generating capacity located in the Commonwealth using  
175 energy derived from sunlight or onshore wind, which shall include 1,100 megawatts of solar generation  
176 of a nameplate capacity not to exceed three megawatts per individual project and 35 percent of such  
177 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes  
178 from solar facilities owned by persons other than a utility, including utility affiliates and deregulated  
179 affiliates and (ii) pursuant to § 56-585.1:11, construct or purchase one or more offshore wind generation

180 facilities located off the Commonwealth's Atlantic shoreline or in federal waters and interconnected  
181 directly into the Commonwealth with an aggregate capacity of up to 5,200 megawatts. At least 200  
182 megawatts of the 16,100 megawatts shall be placed on previously developed project sites.

183 a. By December 31, 2024, each Phase II Utility shall petition the Commission for necessary  
184 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
185 environmental attributes of at least 3,000 megawatts of generating capacity located in the Commonwealth  
186 using energy derived from sunlight or onshore wind, and 35 percent of such generating capacity procured  
187 shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind  
188 facilities owned by persons other than the utility, with the remainder, in the aggregate, being from  
189 construction or acquisition by such Phase II Utility.

190 b. By December 31, 2027, each Phase II Utility shall petition the Commission for necessary  
191 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
192 environmental attributes of at least 3,000 megawatts of additional generating capacity located in the  
193 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating  
194 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar  
195 or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,  
196 being from construction or acquisition by such Phase II Utility.

197 c. By December 31, 2030, each Phase II Utility shall petition the Commission for necessary  
198 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
199 environmental attributes of at least 4,000 megawatts of additional generating capacity located in the  
200 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating  
201 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar  
202 or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,  
203 being from construction or acquisition by such Phase II Utility.

204 d. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary  
205 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
206 environmental attributes of at least 6,100 megawatts of additional generating capacity located in the

207 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating  
208 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar  
209 or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,  
210 being from construction or acquisition by such Phase II Utility.

211 e. Nothing in this subdivision 2 shall prohibit such Phase II Utility from constructing, acquiring,  
212 or entering into agreements to purchase the energy, capacity, and environmental attributes of more than  
213 16,100 megawatts of generating capacity located in the Commonwealth using energy derived from  
214 sunlight or onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-  
215 580 and 56-585.1.

216 3. Nothing in this section shall prohibit a utility from petitioning the Commission to construct or  
217 acquire zero-carbon electricity or from entering into contracts to procure the energy, capacity, and  
218 environmental attributes of zero-carbon electricity generating resources in excess of the requirements in  
219 subsection B. The Commission shall determine whether to approve such petitions on a stand-alone basis  
220 pursuant to §§ 56-580 and 56-585.1, provided that the Commission's review shall also consider whether  
221 the proposed generating capacity (i) is necessary to meet the utility's native load, (ii) is likely to lower  
222 customer fuel costs, (iii) will provide economic development opportunities in the Commonwealth, and  
223 (iv) serves a need that cannot be more affordably met with demand-side or energy storage resources.

224 Each Phase I and Phase II Utility shall, at least once every year, conduct a request for proposals  
225 for new solar and wind resources. Such requests shall quantify and describe the utility's need for energy,  
226 capacity, or renewable energy certificates. The requests for proposals shall be publicly announced and  
227 made available for public review on the utility's website at least 45 days prior to the closing of such request  
228 for proposals. The requests for proposals shall provide, at a minimum, the following information: (a) the  
229 size, type, and timing of resources for which the utility anticipates contracting; (b) any minimum  
230 thresholds that must be met by respondents; (c) major assumptions to be used by the utility in the bid  
231 evaluation process, including environmental emission standards; (d) detailed instructions for preparing  
232 bids so that bids can be evaluated on a consistent basis; (e) the preferred general location of additional  
233 capacity; and (f) specific information concerning the factors involved in determining the price and non-

234 price criteria used for selecting winning bids. A utility may evaluate responses to requests for proposals  
235 based on any criteria that it deems reasonable but shall at a minimum consider the following in its selection  
236 process: (1) the status of a particular project's development; (2) the age of existing generation facilities;  
237 (3) the demonstrated financial viability of a project and the developer; (4) a developer's prior experience  
238 in the field; (5) the location and effect on the transmission grid of a generation facility; (6) benefits to the  
239 Commonwealth that are associated with particular projects, including regional economic development and  
240 the use of goods and services from Virginia businesses; and (7) the environmental impacts of particular  
241 resources, including impacts on air quality within the Commonwealth and the carbon intensity of the  
242 utility's generation portfolio.

243 4. In connection with the requirements of this subsection, each Phase I and Phase II Utility shall,  
244 commencing in 2020 and concluding in 2035, submit annually a plan and petition for approval for the  
245 development of new solar and onshore wind generation capacity. Such plan shall reflect, in the aggregate  
246 and over its duration, the requirements of subsection D concerning the allocation percentages for  
247 construction or purchase of such capacity. Such petition shall contain any request for approval to construct  
248 such facilities pursuant to subsection D of § 56-580 and a request for approval or update of a rate  
249 adjustment clause pursuant to subdivision A 6 of § 56-585.1 to recover the costs of such facilities. Such  
250 plan shall also include the utility's plan to meet the energy storage project targets of subsection E, including  
251 the goal of installing at least 10 percent of such energy storage projects behind the meter. In determining  
252 whether to approve the utility's plan and any associated petition requests, the Commission shall determine  
253 whether they are reasonable and prudent and shall give due consideration to (i) the RPS and carbon dioxide  
254 reduction requirements in this section, (ii) the promotion of new renewable generation and energy storage  
255 resources within the Commonwealth, and associated economic development, and (iii) fuel savings  
256 projected to be achieved by the plan. Notwithstanding any other provision of this title, the Commission's  
257 final order regarding any such petition and associated requests shall be entered by the Commission not  
258 more than six months after the date of the filing of such petition.

259 5. If, in any year, a Phase I or Phase II Utility is unable to meet the compliance obligation of the  
260 RPS Program requirements or if the cost of RECs necessary to comply with RPS Program requirements

261 exceeds \$45 per megawatt hour, such supplier shall be obligated to make a deficiency payment equal to  
262 \$45 for each megawatt-hour shortfall for the year of noncompliance, except that the deficiency payment  
263 for any shortfall in procuring RECs for solar, wind, or anaerobic digesters located in the Commonwealth  
264 shall be \$75 per megawatts hour for resources one megawatt and lower. The amount of any deficiency  
265 payment shall increase by one percent annually after 2021. A Phase I or Phase II Utility shall be entitled  
266 to recover the costs of such payments as a cost of compliance with the requirements of this subsection  
267 pursuant to subdivision A 5 d of § 56-585.1. All proceeds from the deficiency payments shall be deposited  
268 into an interest-bearing account administered by the Department of Energy. In administering this account,  
269 the Department of Energy shall manage the account as follows: (i) 50 percent of total revenue shall be  
270 directed to job training programs in historically economically disadvantaged communities; (ii) 16 percent  
271 of total revenue shall be directed to energy efficiency measures for public facilities; (iii) 30 percent of  
272 total revenue shall be directed to renewable energy programs located in historically economically  
273 disadvantaged communities; and (iv) four percent of total revenue shall be directed to administrative costs.

274 For any project constructed pursuant to this subsection or subsection E, a utility shall, subject to a  
275 competitive procurement process, procure equipment from a Virginia-based or United States-based  
276 manufacturer using materials or product components made in Virginia or the United States, if reasonably  
277 available and competitively priced.

278 E. To enhance reliability and performance of the utility's generation and distribution system, each  
279 Phase I and Phase II Utility shall petition the Commission for necessary approvals to construct or acquire  
280 new, utility-owned energy storage resources.

281 1. By December 31, 2035, each Phase I Utility shall petition the Commission for necessary  
282 approvals to construct or acquire 400 megawatts of energy storage capacity. Nothing in this subdivision  
283 shall prohibit a Phase I Utility from constructing or acquiring more than 400 megawatts of energy storage,  
284 provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

285 2. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary  
286 approvals to construct or acquire 2,700 megawatts of energy storage capacity. Nothing in this subdivision  
287 shall prohibit a Phase II Utility from constructing or acquiring more than 2,700 megawatts of energy

288 storage, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-  
289 585.1.

290 3. No single energy storage project shall exceed 500 megawatts in size, except that a Phase II  
291 Utility may procure a single energy storage project up to 800 megawatts.

292 4. All energy storage projects procured pursuant to this subsection shall meet the competitive  
293 procurement protocols established in subdivision D 3.

294 5. After July 1, 2020, at least 35 percent of the energy storage facilities placed into service shall  
295 be (i) purchased by the public utility from a party other than the public utility or (ii) owned by a party  
296 other than a public utility, with the capacity from such facilities sold to the public utility. By January 1,  
297 2021, the Commission shall adopt regulations to achieve the deployment of energy storage for the  
298 Commonwealth required in subdivisions 1 and 2, including regulations that set interim targets and update  
299 existing utility planning and procurement rules. The regulations shall include programs and mechanisms  
300 to deploy energy storage, including competitive solicitations, behind-the-meter incentives, non-wires  
301 alternatives programs, and peak demand reduction programs.

302 F. All costs incurred by a Phase I or Phase II Utility related to compliance with the requirements  
303 of this section or pursuant to § 56-585.1:11, including (i) costs of generation facilities powered by sunlight  
304 or onshore or offshore wind, or energy storage facilities, that are constructed or acquired by a Phase I or  
305 Phase II Utility after July 1, 2020, (ii) costs of capacity, energy, or environmental attributes from  
306 generation facilities powered by sunlight or onshore or offshore wind, or falling water, or energy storage  
307 facilities purchased by the utility from persons other than the utility through agreements after July 1, 2020,  
308 and (iii) all other costs of compliance, including costs associated with the purchase of RECs associated  
309 with RPS Program requirements pursuant to this section shall be recovered from all retail customers in  
310 the service territory of a Phase I or Phase II Utility as a non-bypassable charge, irrespective of the  
311 generation supplier of such customer, except (a) as provided in subsection G for an accelerated renewable  
312 energy buyer or (b) as provided in subdivision C 3 of § 56-585.1:11, with respect to the costs of an offshore  
313 wind generation facility, for a PIPP eligible utility customer or an advanced clean energy buyer or  
314 qualifying large general service customer, as those terms are defined in § 56-585.1:11. If a Phase I or

315 Phase II Utility serves customers in more than one jurisdiction, such utility shall recover all of the costs  
316 of compliance with the RPS Program requirements from its Virginia customers through the applicable  
317 cost recovery mechanism, and all associated energy, capacity, and environmental attributes shall be  
318 assigned to Virginia to the extent that such costs are requested but not recovered from any system  
319 customers outside the Commonwealth.

320 By September 1, 2020, the Commission shall direct the initiation of a proceeding for each Phase I  
321 and Phase II Utility to review and determine the amount of such costs, net of benefits, that should be  
322 allocated to retail customers within the utility's service territory which have elected to receive electric  
323 supply service from a supplier of electric energy other than the utility, and shall direct that tariff provisions  
324 be implemented to recover those costs from such customers beginning no later than January 1, 2021.  
325 Thereafter, such charges and tariff provisions shall be updated and trued up by the utility on an annual  
326 basis, subject to continuing review and approval by the Commission.

327 G. 1. An accelerated renewable energy buyer may contract with a Phase I or Phase II Utility, or a  
328 person other than a Phase I or Phase II Utility, to obtain (i) RECs from RPS eligible resources or (ii)  
329 bundled capacity, energy, and RECs from solar or wind generation resources located within the PJM  
330 region and initially placed in commercial operation after January 1, 2015, including any contract with a  
331 utility for such generation resources that does not allocate to or recover from any other customer of the  
332 utility the cost of such resources. Such an accelerated renewable energy buyer may offset all or a portion  
333 of its electric load for purposes of RPS compliance through such arrangements. An accelerated renewable  
334 energy buyer shall be exempt from the assignment of non-bypassable RPS compliance costs pursuant to  
335 subsection F, with the exception of the costs of an offshore wind generating facility pursuant to § 56-  
336 585.1:11, based on the amount of RECs obtained pursuant to this subsection in proportion to the  
337 customer's total electric energy consumption, on an annual basis. An accelerated renewable energy buyer  
338 obtaining RECs only shall not be exempt from costs related to procurement of new solar or onshore wind  
339 generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant  
340 to subsections D and E, however, an accelerated renewable energy buyer that is a customer of a Phase II  
341 Utility and was subscribed, as of March 1, 2020, to a voluntary companion experimental tariff offering of

342 the utility for the purchase of renewable attributes from renewable energy facilities that requires a  
343 renewable facilities agreement and the purchase of a minimum of 2,000 renewable attributes annually,  
344 shall be exempt from allocation of the net costs related to procurement of new solar or onshore wind  
345 generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant  
346 to subsections D and E, based on the amount of RECs associated with the customer's renewable facilities  
347 agreements associated with such tariff offering as of that date in proportion to the customer's total electric  
348 energy consumption, on an annual basis. To the extent that an accelerated renewable energy buyer  
349 contracts for the capacity of new solar or wind generation resources pursuant to this subsection, the  
350 aggregate amount of such nameplate capacity shall be offset from the utility's procurement requirements  
351 pursuant to subsection D. All RECs associated with contracts entered into by an accelerated renewable  
352 energy buyer with the utility, or a person other than the utility, for an RPS Program shall not be credited  
353 to the utility's compliance with its RPS requirements, and the calculation of the utility's RPS Program  
354 requirements shall not include the electric load covered by customers certified as accelerated renewable  
355 energy buyers.

356           2. Each Phase I or Phase II Utility shall certify, and verify as necessary, to the Commission that  
357 the accelerated renewable energy buyer has satisfied the exemption requirements of this subsection for  
358 each year, or an accelerated renewable energy buyer may choose to certify satisfaction of this exemption  
359 by reporting to the Commission individually. The Commission may promulgate such rules and regulations  
360 as may be necessary to implement the provisions of this subsection.

361           3. Provided that no incremental costs associated with any contract between a Phase I or Phase II  
362 Utility and an accelerated renewable energy buyer is allocated to or recovered from any other customer of  
363 the utility, any such contract with an accelerated renewable energy buyer that is a jurisdictional customer  
364 of the utility shall not be deemed a special rate or contract requiring Commission approval pursuant to §  
365 56-235.2.

366           H. No customer of a Phase II Utility with a peak demand in excess of 100 megawatts in 2019 that  
367 elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service  
368 provider prior to April 1, 2019, shall be allocated any non-bypassable charges pursuant to subsection F

369 for such period that the customer is not purchasing electric energy from the utility, and such customer's  
370 electric load shall not be included in the utility's RPS Program requirements. No customer of a Phase I  
371 Utility that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive  
372 service provider prior to February 1, 2019, shall be allocated any non-bypassable charges pursuant to  
373 subsection F for such period that the customer is not purchasing electric energy from the utility, and such  
374 customer's electric load shall not be included in the utility's RPS Program requirements.

375 I. Nothing in this section shall apply to any entity organized under Chapter 9.1 (§ 56-231.15 et  
376 seq.).

377 J. The Commission shall adopt such rules and regulations as may be necessary to implement the  
378 provisions of this section, including a requirement that participants verify whether the RPS Program  
379 requirements are met in accordance with this section.

380 **2. That the Department of Forestry (the Department) shall convene an advisory panel to examine**  
381 **the use of forest-related materials, agricultural-related materials, and solid woody waste materials,**  
382 **as those terms are described in § 10.1-1308.1 of the Code of Virginia, for biomass-fired electric**  
383 **generating units in the Commonwealth. The advisory panel shall consist of representatives from the**  
384 **Department of Environmental Quality, the Department of Energy, industry, environmental**  
385 **organizations, and the Virginia Cooperative Extension, and other stakeholders as the Department**  
386 **deems appropriate. The advisory panel shall examine the following factors related to the use of**  
387 **forest-related materials, agricultural-related materials, and solid woody waste materials for**  
388 **biomass-fired electric generating units: (i) policies in the southeastern United States and other states**  
389 **participating in the PJM regional transmission organization interchange as they relate to the use of**  
390 **biomass for electricity generation; (ii) potential benefits for the Commonwealth's hardwood forest**  
391 **health as a result of using biomass resources for electricity generation; (iii) the amount of forest-**  
392 **related materials, agricultural-related materials, and solid woody waste materials that can be**  
393 **sustainably consumed annually without disrupting existing markets; (iv) consideration of**  
394 **technological advances in biomass energy generation; and (v) a life-cycle carbon analysis, developed**  
395 **in coordination with the Department of Environmental Quality and relevant stakeholders, that**

396 includes all carbon emissions, including supply chain emissions, forgone sequestration, and the  
397 emissions from burning biomass resources for electricity generation. The advisory panel may  
398 consider other factors as the Department deems necessary. The Department shall submit a report  
399 of the advisory panel's findings and any recommendations to the Chairmen of the House Committee  
400 on Commerce and Energy and the Senate Committee on Commerce and Labor no later than  
401 December 1, 2024.

402 3. That the Department of Forestry shall develop, no later than December 1, 2023, best management  
403 practices for the sustainable harvesting of biomass, as described in subdivision A 1 of § 10.1-1308.1  
404 of the Code of Virginia, for biomass-fired electric generating units that are subject to the provisions  
405 of § 56-585.5 of the Code of Virginia, as amended by this act. The best management practices shall  
406 include a life-cycle carbon analysis, developed in coordination with the Department of  
407 Environmental Quality and relevant stakeholders, that includes all carbon emissions, including  
408 supply chain emissions, forgone sequestration, and the emissions from burning biomass resources  
409 for electricity generation.

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